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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/696,671 | 10/28/2003 | Robert D. Ivarie | 021396-000203US | 6850 |
| 20350 | 7590 | 04/20/2006 | EXAMINER | |
| TOWNSEND AND TOWNSEND AND CREW, LLP TWO EMBARCADERO CENTER EIGHTH FLOOR SAN FRANCISCO, CA 94111-3834 | | | KAUSHAL, SUMESH | |
| | | ART UNIT | PAPER NUMBER | |
| | | 1633 | | |

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| Office Action Summary | Application No. | Applicant(s) |
|------------------------------|-----------------|---------------|
| | 10/696,671 | IVARIE ET AL. |
| Examiner | Art Unit | |
| Sumesh Kaushal Ph.D. | 1633 | |

Office Action Summary

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 23 January 2006.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 20,21,28-35,37,41,42 and 46 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 20,21,28-35,37,41,42 and 46 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a))

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date 1/6 .

4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. ____ .

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Applicant's response filed on 1/23/06 has been acknowledged.

Claims 20,21,28-35,37,41,42 and 46 are pending and are examined in this office action.

Applicants are required to follow Amendment Practice under revised 37 CFR §1.121. The fax phone numbers for the organization where this application or proceeding is assigned is 571-273-8300.

Applicant's arguments with respect to claims 20-21, 28-35, 37, 41-42 and 46 have been considered but are moot in view of the new ground(s) of rejection below.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 20-21, 28-35, 37, 41-42 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Bosselman et al (US 5162215, 1992). Bosselman teaches the micro-injection of a replication- defective REV-derived retroviral vector in side the egg around the blastoderm. After the injection the eggs are sealed and incubated to form chicks (col.8 line 45-66). The cited art further teaches the transfer of nucleic acid sequences encoding desirable protein products like human serum albumin, alpha1-anti trypsin, blood clotting proteins (factor VII) and hematopoietic growth factors (EPO, G-CSF, LGF) to make transgenic chickens and eggs thereof wherein the egg contain a desirable protein product (col.6 line 8-17). Thus the cited art clearly anticipate the invention as claimed.

Claims 34-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Boldt (US 4,296,134, 1981).

The instant claims are drawn to chicken egg white comprising a protein exogenous to the egg white. Boldt teaches an egg product that comprises chicken egg white blended with milk proteins (NFDM) and soy proteins (col. 9-10). In addition NFDM naturally contains lactoferrin, which is inherently displays anti-microbial activity against various pathogens. Thus given the broadest reasonable interpretation the cited art clearly anticipate a chicken egg white comprising an exogenous protein.

Response to arguments

The applicant arguments regarding prior issue on page 15 of response filed on 1/23/06 has been fully considered. The applicant argues that instant claim has been amended to recite wherein the exogenous protein that is a pharmaceutical protein. However, applicant's arguments are found not persuasive because give the broadest reasonable interpretation the milk protein (i.e. lactoferrin) or soy proteins are considered exogenous pharmaceutical proteins. Thus given the broadest reasonable interpretation the cited art clearly anticipate a chicken egg white comprising an exogenous protein.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bosselman et al (US 5,162,215, 1992) as applied to claims 20-21, 28-35, 37, 41-42 and 46 above, and further in view of Sekellick et al (US 5,885,567, 1999).

The scope of invention as claimed encompasses a chicken egg or egg white containing an exogenous protein (interferon) in the egg white.

The teaching of Bosselman has been described above. Even though Bosselman teaches a chicken egg injected with an exogenous solution comprising genetically, viruses, growth factors or cytokines etc, the cited art does not teach an egg or egg white thereof containing interferon.

Sekellick et al teaches a preparation of recombinant interferon and its use to treat viral infections in fowl (col.5 lines 18-38, col.19-20).

Thus it would have been obvious to one ordinary skilled in the art at the time the instant invention was made to modify the invention of Bosselman by substituting a cytokine with interferon in view of Sekellick. One would have been motivated to do so to prevent viral infections in developing eggs. One would have a reasonable expectation of success, since injection of a reagent of interest in an egg has been routine in the art at time the instant invention was made. Thus the invention as claimed is *prima facie* obvious in view of cited prior art of record.

Conclusion

No claims are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sumesh Kaushal Ph.D. whose telephone number is 571-272-0769. The examiner can normally be reached on Mon-Fri. from 9AM-5PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dave Nguyen can be reached on 571-272-0731.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to **571-272-0547**. For all other customer support, please call the USPTO Call Center (UCC) at 800-786-9199. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**



SUMESH KAUSHAL, PH.D.
PRIMARY EXAMINER